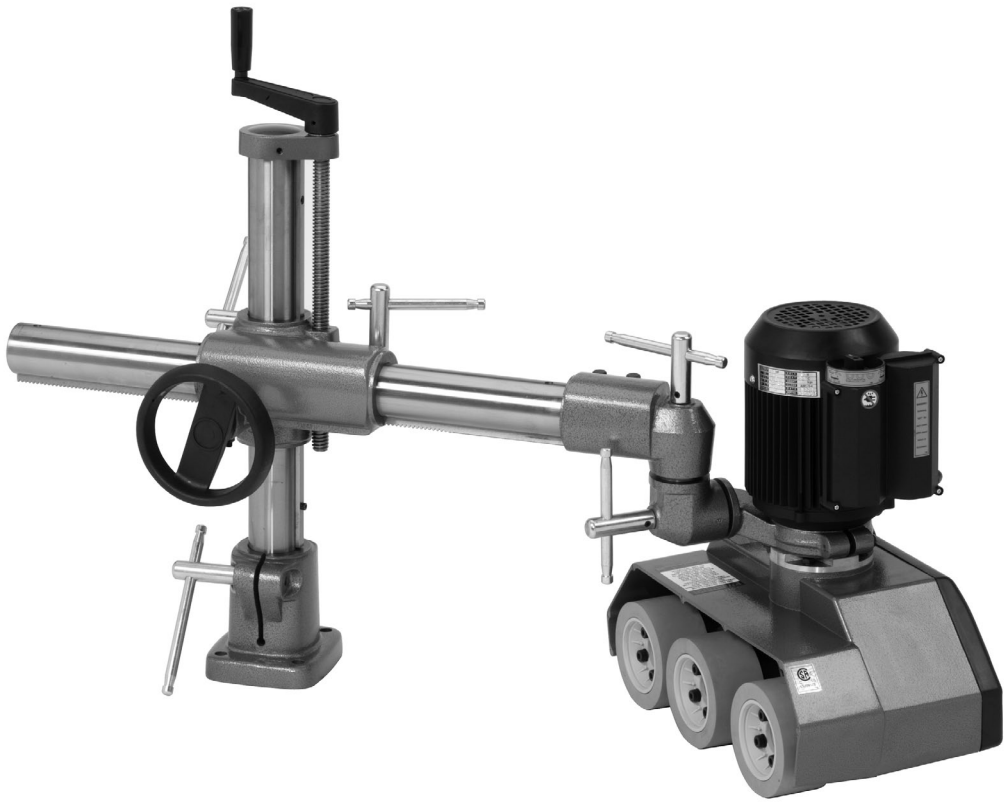
MODEL G4181/G7873
1-HP POWER FEEDER
OWNER'S MANUAL



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#CR10817 PRINTED IN TAIWAN

⚠ WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

Failure to read, understand and follow the instructions given in this manual may result in serious personal injury, including amputation, electrocution or death.

The owner of this machine/equipment is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, blade/cutter integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

⚠ WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **Arsenic and chromium from chemically-treated lumber.**

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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INTRODUCTION

Foreword

We are proud to offer the Model G4181 1-HP Power Feeder. This machine is part of a growing Grizzly family of fine woodworking machinery. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

The specifications, drawings, and photographs illustrated in this manual represent the Model G4181 when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly.

For your convenience, we always keep current Grizzly manuals available on our website at **www.grizzly.com**. Any updates to your machine will be reflected in these manuals as soon as they are complete. Visit our site often to check for the latest updates to this manual!

Contact Info

We stand behind our machines. If you have any service questions, parts requests or general questions about the machine, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.
C/O Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

Functional Overview

This power feeder greatly simplifies repetitive operations on table saws, jointers, and shapers by automating how workpieces are fed into the cut.

Since the power feeder is typically positioned between the blade and the operator during operations, the operator's hands do not need to get near the blade when feeding the workpiece, so the danger of an accidental cutting injury is greatly reduced.

Additionally, the power feeder provides more consistent results than hand fed operations, because it moves the workpiece at an even speed and maintains consistent workpiece pressure against the table and fence throughout the cut.

The power feeder works by simply attaching rubber rollers to a motor through a series of gears designed to control the roller speed.

Since the rubber rollers must be positioned correctly to maintain even workpiece pressure against the table and fence, the power feeder is mounted on a stand that allows it to be moved and locked at an array of heights an angles within the range of the stand.

The power feeder stand is typically mounted to the desired machine by clamping it to the machine's table, or mounting it directly into the machine's table via drilled and tapped holes.

MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

MODEL G4181 1 HP POWER FEEDER

Product Dimensions:

Weight..... 130 lbs.
Length/Width/Height..... 44 x 16 x 30 in.
Foot Print (Length/Width)..... N/A x N/A

Shipping Dimensions:

Carton #1

Type..... Cardboard
Content..... Machine
Weight..... 63 lbs.
Length/Width/Height..... 21 x 12 x 22 in.

Carton #2

Type..... Cardboard
Content..... Stand
Weight..... 79 lbs.
Length/Width/Height..... 30 x 13 x 12 in.

Electrical:

Switch..... Forward/Reverse Barrel with 2 Speeds
Switch Voltage..... 220V
Cord Length..... 9 ft.
Cord Gauge..... 16 gauge
Recommended Breaker Size..... 15 amp
Plug..... Yes

Motors:

Main

Type..... TEFC Capacitor Start Induction
Horsepower..... 1 HP
Voltage..... 220V
Prewired..... 220V
Phase..... Single
Amps..... 4.2/2.5A
Speed..... 3210/1700 RPM
Cycle..... 60 Hz
Number Of Speeds..... 2
Power Transfer ..... Gear Box
Bearings..... Lubricated for Life

Main Specifications:

Workpiece Capacities

Min. WorkPiece Len..... 7 in.

Operation Info

No. Of Feed Speeds	4
Feed Speeds	13, 26, 33, 66 FPM
Swing	360 deg.
Vertical Movement	9-7/8 in.
Horizontal Movement	18-1/8 in.
Rotation	Forward, Reverse

Roller Info

No. Of Rollers	3
Roller Width	2-1/4 in.
Roller Diameter	4-3/4 in.
Roller Suspension	3/4 in.
Max Height Rollers Parallel Table Surface	8-1/2 in.
Centers Between Rollers	5 in.

Other

Column Diameter	2-1/4 in.

Construction Info

Roller Construction	Synthetic Rubber
Housing Construction	Cast Aluminum
Supports Construction	Cast Iron
Column Construction	Steel
Paint	Epoxy

Other Specifications:

ISO Factory	ISO 9001
Country Of Origin	Taiwan
Warranty	1 Year
Serial Number Location	"Checked" Sticker, On In-feed Portion Of Housing's Roller Cover Side
Assembly Time	45 minutes

Features:

Rollers are Spring Tensioned
Heavy-Duty Gear Reduction with Hardened Gears
Universal Positioning with Handle Locks
Rack and Pinion Horizontal Movement

MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

MODEL G7873 1-HP 3-PHASE POWER FEEDER

Product Dimensions:

Weight.....130 lbs.
Length/Width/Height..... 44 x 16 x 30 in.
Foot Print (Length/Width)..... N/A x N/A

Shipping Dimensions:

Carton #1

Type..... Cardboard
Content..... Machine
Weight..... 63 lbs.
Length/Width/Height..... 21 x 12 x 22 in.

Carton #2

Type..... Cardboard
Content..... Stand
Weight..... 79 lbs.
Length/Width/Height..... 30 x 13 x 12 in.

Electrical:

Switch..... Forward/Reverse Barrel with 2 Speeds
Switch Voltage..... 220V
Cord Length..... 9 ft.
Cord Gauge.....16 gauge
Recommended Breaker Size.....15 amp
Plug..... Yes

Motors:

Main

Type.....TEFC
Horsepower.....1 HP
Voltage.....220V
Prewired.....220V
Phase..... Three
Amps..... 3.4/2.5A
Speed..... 3400/1720 RPM
Cycle.....60 Hz
Number Of Speeds..... 2
Power Transfer ..... Gear Box
Bearings..... Lubricated for Life

Main Specifications:

Workpiece Capacities

Min. WorkPiece Len..... 7 in.

Operation Info

No. Of Feed Speeds	4
Feed Speeds	13, 26, 33, 66 FPM
Swing	360 deg.
Vertical Movement	9-7/8 in.
Horizontal Movement	18-1/8 in.
Rotation	Forward, Reverse

Roller Info

No. Of Rollers	3
Roller Width	2-1/4 in.
Roller Diameter	4-3/4 in.
Roller Suspension	3/4 in.
Max Height Rollers Parallel Table Surface	8-1/2 in.
Centers Between Rollers	5 in.

Other

Column Diameter	2-1/4 in.

Construction Info

Roller Construction	Synthetic Rubber
Housing Construction	Cast Aluminum
Supports Construction	Cast Iron
Column Construction	Steel
Paint	Epoxy

Other Specifications:

ISO Factory	ISO 9001
Country Of Origin	Taiwan
Warranty	1 Year
Serial Number Location	"Checked" Sticker, On In-feed Portion Of Housing's Roller Cover Side
Assembly Time	45 minutes

Features:

Rollers are Spring Tensioned
Heavy-Duty Gear Reduction with Hardened Gears
Universal Positioning with Handle Locks
Rack and Pinion Horizontal Movement

Identification

Refer to **Figure 1** and your power feeder to familiarize yourself with the controls, features, and terminology used in this manual. Doing so will make setup, use, and any future maintenance easier.

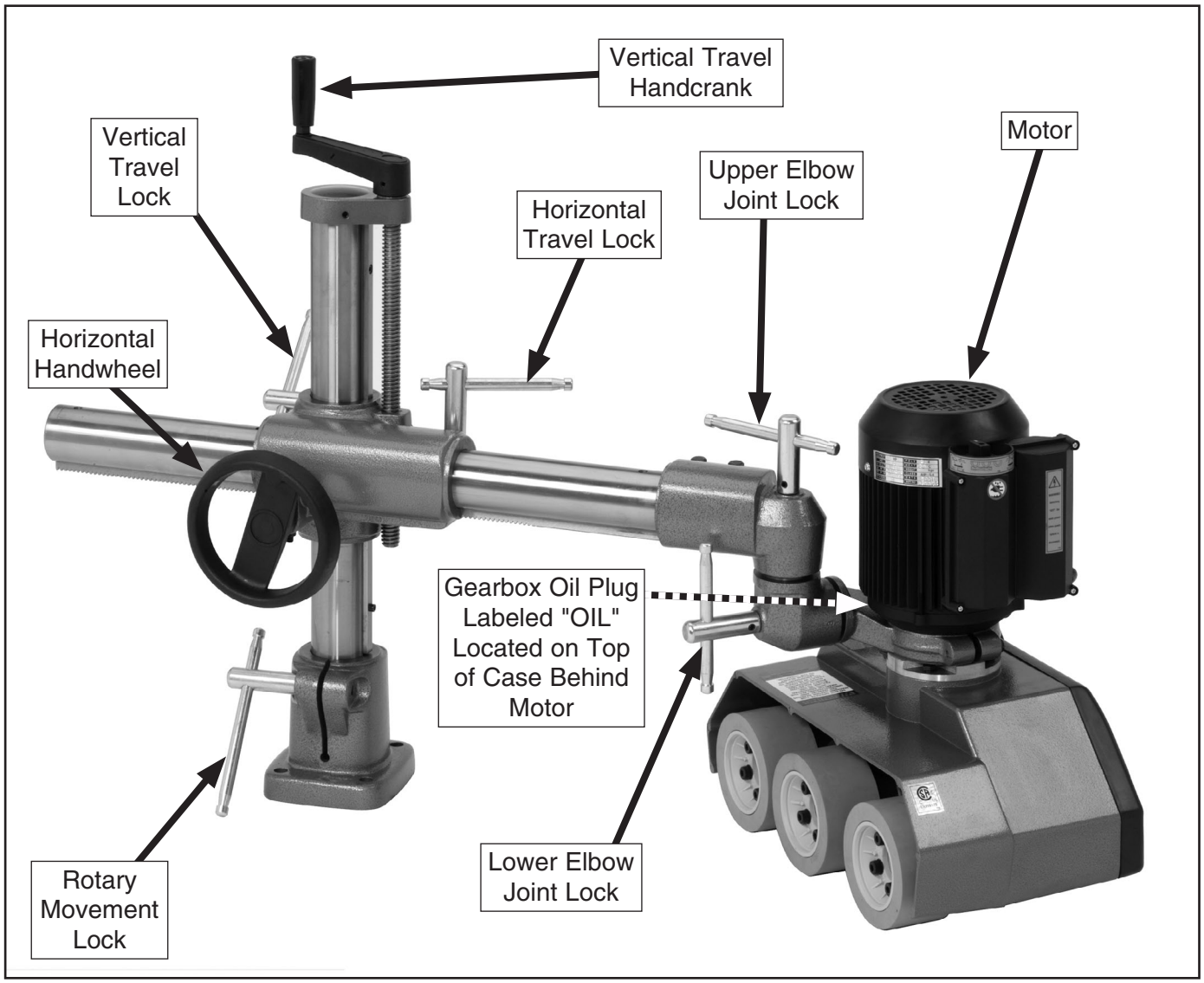


Figure 1. Controls and features.

SECTION 1: SAFETY

⚠WARNING

For Your Own Safety, Read Instruction Manual Before Operating this Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.

⚠DANGER **Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.**

⚠WARNING **Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.**

⚠CAUTION **Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.**

NOTICE **This symbol is used to alert the user to useful information about proper operation of the machine.**

⚠WARNING

Safety Instructions for Machinery

1. **READ THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.
2. **ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.
3. **ALWAYS WEAR A NIOSH APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Most types of dust (wood, metal, etc.) can cause severe respiratory illnesses.
4. **ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing loss.
5. **WEAR PROPER APPAREL.** DO NOT wear loose clothing, gloves, neckties, rings, or jewelry that can catch in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
6. **NEVER OPERATE MACHINERY WHEN TIRED OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.

⚠WARNING
Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.

8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.

9. **MAKE WORKSHOP CHILDPROOF.** Use padlocks, master switches, and remove start switch keys.

10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power ***OFF*** and allow all moving parts to come to a complete stop before leaving machine unattended.

11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.

12. **KEEP WORK AREA CLEAN AND WELL LIGHTED.** Clutter and dark shadows may cause accidents.

13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Grounded cords minimize shock hazards. Undersized cords create excessive heat. Always replace damaged extension cords.

14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY**. Make sure switch is in OFF position before reconnecting.

15. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**

17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make a habit of checking for keys and adjusting wrenches before turning machinery ***ON***.

18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding or misaligned parts, broken parts, loose bolts, and any other conditions that may impair machine operation. Repair or replace damaged parts before operation.

19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. Improper accessories increase risk of injury.

20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.

21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.

22. **DO NOT OVERREACH.** Maintain stability and balance at all times.

23. **MANY MACHINES CAN EJECT WORKPIECES TOWARD OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."

24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY**.

25. **CERTAIN DUST MAY BE HAZARDOUS** to the respiratory systems of people and animals, especially fine dust. Be aware of the type of dust you are exposed to and always wear a respirator designed to filter that type of dust.

⚠WARNING
Additional Safety for Power Feeders

1. **SAFETY ACCESSORIES.** Always use appropriate machine guards.

2. **TOOL SPEED.** Make sure all cutting tools are rotating at the operating speed before feeding the workpiece.

3. **FEEDING SPEED.** DO NOT overload the cutting tool by feeding too quickly. The cutting tool will perform better and be safer to work with at the rate for which it was designed.

4. **HAND SAFETY.** Keep hands away from rotating parts on the feeder and the cutting tool. Do not allow hands or clothing to be pinched beween the rollers and workpiece.

5. **WORKPIECE SUPPORT.** DO NOT feed long workpieces without providing adequate support at the outfeed end of the table.

6. **STOPPING FEEDER.** Always stop the feeder before stopping the cutting tool.

7. **ADJUSTMENTS.** Disconnect the feeder from its power source before cleaning, repairing, or making adjustments.

8. **EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties performing the intended operation, stop using the machine! Contact Tech Support at (570) 546-9663.

⚠WARNING

Like all machines there is danger associated with this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

⚠CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.

SECTION 2: CIRCUIT REQUIREMENTS

220V Operation

⚠WARNING

Serious personal injury could occur if you connect the machine to power before completing the setup process. DO NOT connect the machine to the power until instructed later in this manual.

⚠WARNING

Electrocution or fire could result if machine is not grounded and installed in compliance with electrical codes. Compliance MUST be verified by a qualified electrician!

Full Load Amperage Draw

This machine draws the following amps under maximum load:

Single-Plase Amp Draw (G4181) ..... 4.2 Amps
Three-Phase Amp Draw (G7873) ..... 3.4 Amps

Power Supply Circuit Requirements

You MUST connect your machine to a grounded circuit that is rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

Single-Phase Minimum Circuit Size ..... 15 Amps
Three-Phase Minimum Circuit Size ..... 10 Amps

Power Connection Device

The type of plug required to connect your machine to power depends on the type of service you currently have or plan to install. For 220V single-phase operation we recommend using the plug shown in **Figure 2**. For 220V three-phase operation we recommend using the locking disconnect switch shown in **Figure 3**.

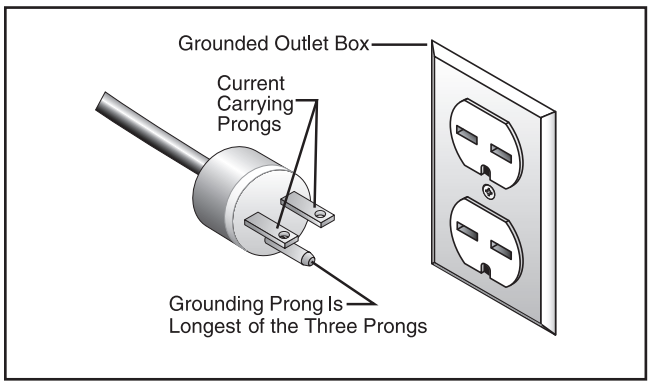


Figure 2. NEMA 6-15 plug and receptacle.

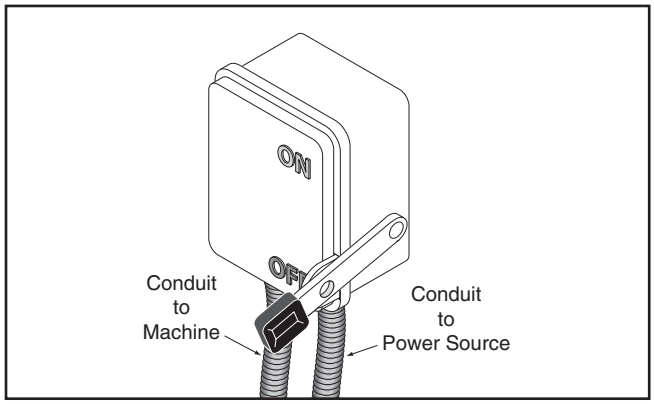


Figure 3. Locking disconnect switch.

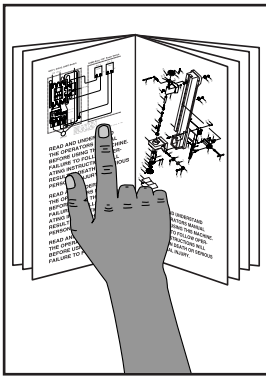
Extension Cords

Using extension cords may reduce the life of the motor. Instead, place the machine near a power source. If you must use an extension cord:

- Use at least a 14 gauge cord that does not exceed 50 feet in length!
- The extension cord must also have a ground wire and plug pin.
- A qualified electrician MUST size cords over 50 feet long to prevent motor damage.

SECTION 3: SETUP

Setup Safety



⚠WARNING

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!

⚠WARNING

Wear safety glasses during the entire setup process!

Items Needed for Setup

The following items are needed to complete the setup process, but are not included with your machine:

Description	Qty
• Safety Glasses	1
• Light Machine Oil	As Required
• Mineral Spirits	As Required
• Medium-Grade Thread Locking Liquid	1
• Clean Rags	As Required

Unpacking

Your machine was carefully packaged for safe transportation. Remove the packaging materials from around your machine and inspect it. If you discover the machine is damaged, *please immediately call Customer Service at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

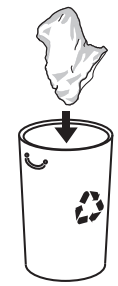
When you are completely satisfied with the condition of your shipment, inventory the contents.

Inventory

The following is a description of the main components shipped with your machine. Lay the components out to inventory them.

Note: *If you can't find an item on this list, check the mounting location on the machine or examine the packaging materials carefully. Occasionally we pre-install certain components for shipping purposes.*

Box Inventory (Figures 4 & 5)	**Qty**
A. Power Feeder Assembly	1
B. Lubricator	1
C. Base and Column Assembly	1
D. Elbow Joint Assembly	1
E. Base Bolt Pattern Template	1
F. Handcrank Handle	1
G. Horizontal Column Assembly	1



⚠WARNING

SUFFOCATION HAZARD!

Immediately discard all plastic bags and packing materials to eliminate choking/suffocation hazards for children and animals.

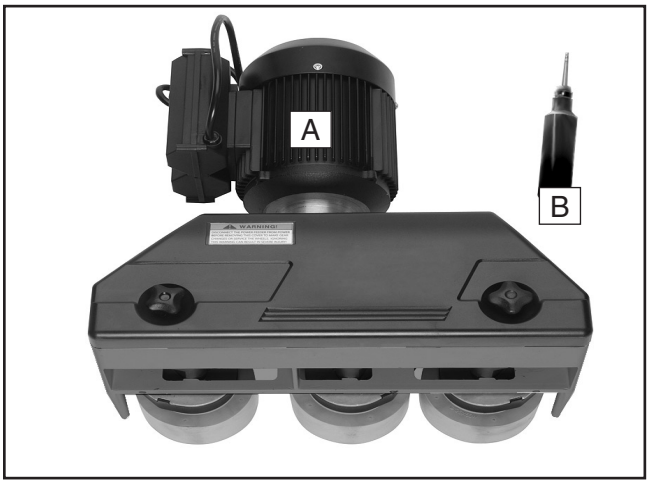


Figure 4. Power feeder inventory.

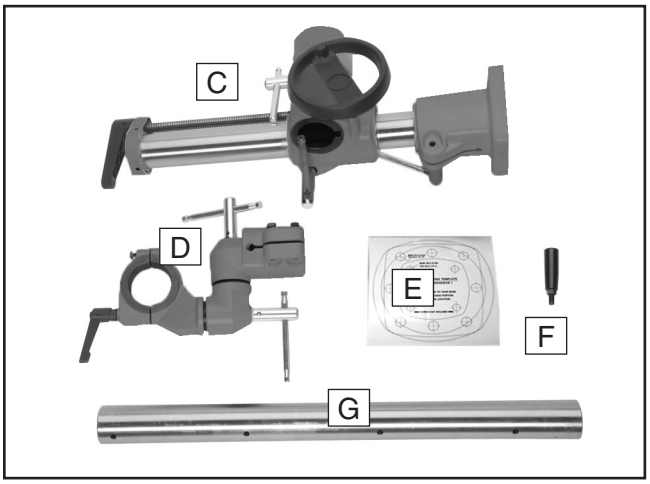
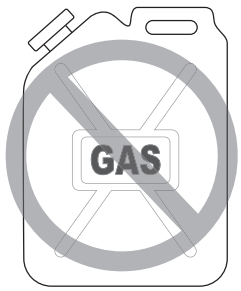


Figure 5. Base inventory.

If any nonproprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

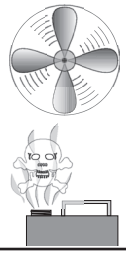
Clean Up

The unpainted surfaces are coated with a waxy oil to prevent corrosion during shipment. Remove this protective coating with a solvent cleaner or degreaser. For thorough cleaning, some parts must be removed. **For optimum performance, clean all moving parts or sliding contact surfaces.** Avoid chlorine-based solvents, such as acetone or brake parts cleaner that may damage painted surfaces. Always follow the manufacturer's instructions when using any type of cleaning product.



⚠WARNING

Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. DO NOT use these products to clean the machinery.



⚠CAUTION

Many cleaning solvents are toxic if inhaled. Minimize your risk by only using these products in a well ventilated area.

Assembly

⚠WARNING

You MUST assemble all guards, fences, and holdowns before starting your machine or power feeder. Failure to heed this warning could result in serious personal injury.

To correctly position this power feeder on your table top, completely assemble the power feeder first in the order of **A**, **B** and **C** as shown in **Figures 6** and **7.** Next, refer to **Base Mounting** on **Page 15**. With the power feeder unit completely assembled, it will be easier to locate where on the table top you will need to drill your base mounting holes, so you can take advantage of the full range of power feeder swing and adjustments.

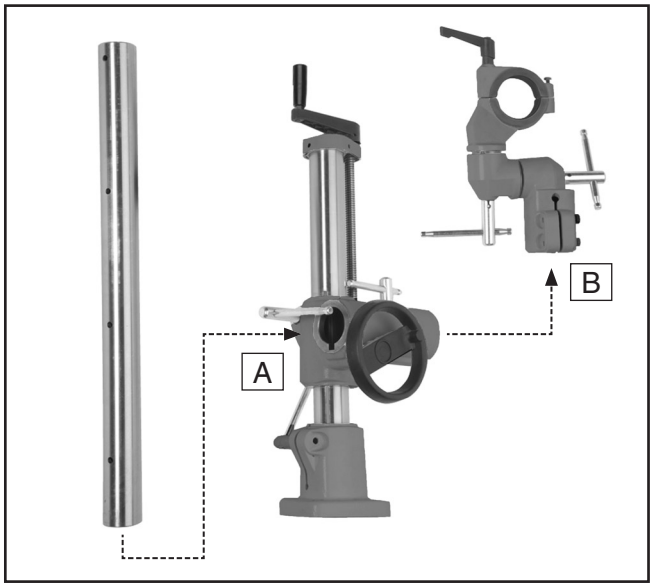


Figure 6. Stand assembly.

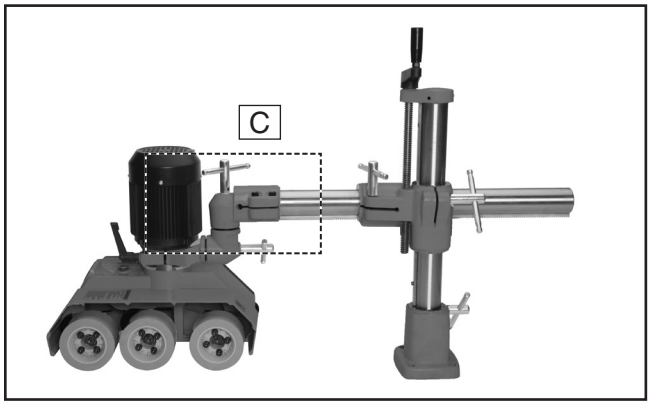


Figure 7. Assembled unit.

Base Mounting

Position the power feeder on the table top to determine where to drill your base mounting holes, so you can maximize power feeder swing and adjustment options.

There are two mounting options available: ***Through Bolt Mounting*** and ***Direct Mounting*** (discussed on **Page 16**). Choose an option that suits your requirements.

Whichever way you mount your power feeder, you must be able to use the handcranks and lock levers to position the rubber wheels parallel with the table surface and ⅛" lower than the thickness of your workpiece.

Also, you must be able to point the power feeder slightly towards the machine fence (**Figure 8**). In other words, the tracking of the power feeder must be toed-in approximately 1° to 1.5° degrees toward the machine fence so the rubber wheels slightly push the workpiece against the fence during cutting operations.

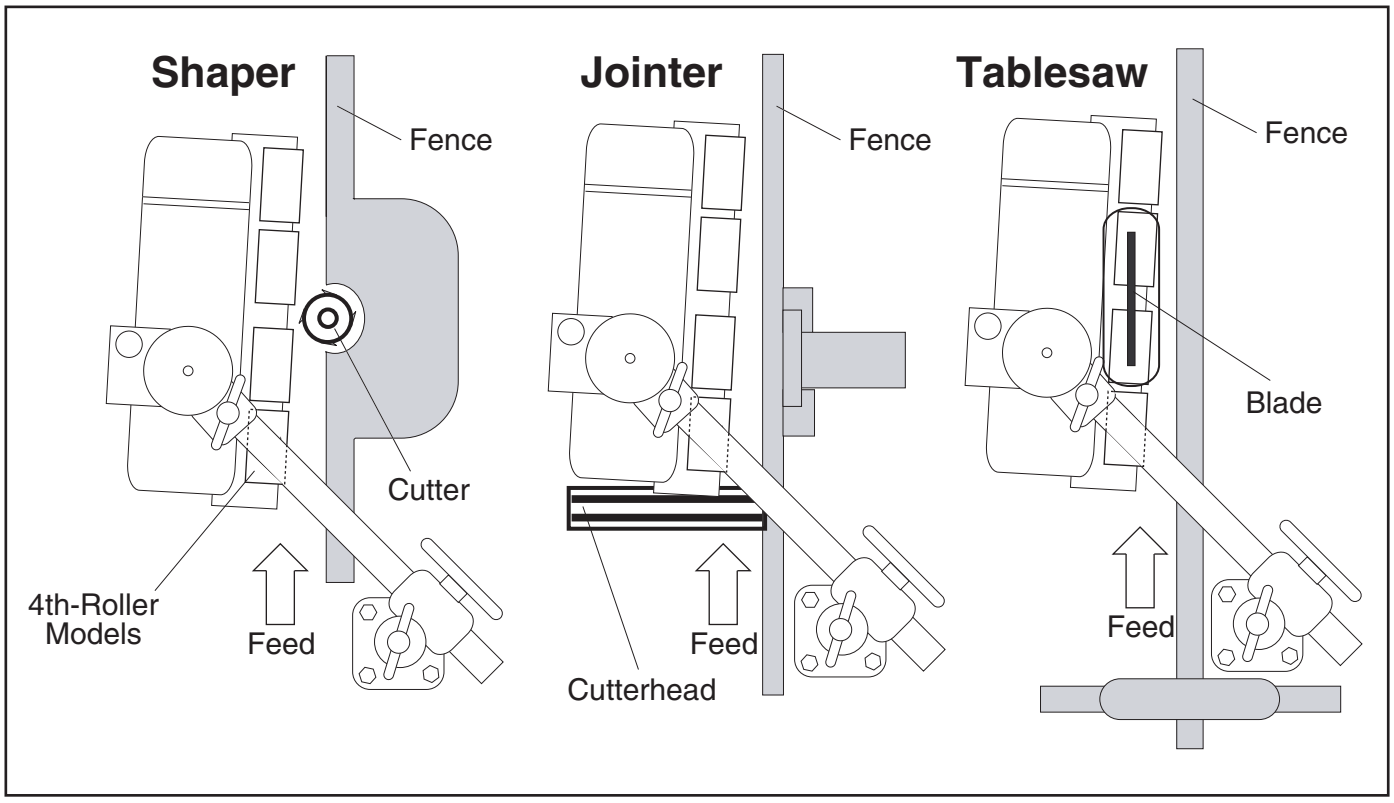


Figure 8. Typical power feed mounting on a shaper, jointer, and tablesaw.

Mounting Options

To correctly position this power feeder on your table top, completely assemble the power feeder first, then refer to this section and mount your base to the table using one of the two methods below. The reason for this order is that with the power feeder unit completely assembled, it will be easier to locate where on the table top you will need to drill your base mounting holes, so you can take advantage of the full range of power feeder swing and adjustments.

Through-Bolt Mounting

We recommend that you mount your new power feeder to the machine table with through bolts, nuts, and washers (**Figure 9**). This option will give the most rigidity and clamping strength to prevent the feeder base from twisting out of alignment during use. However, if under-table support webs interfere with washer or nut locations under the table, you must use an optional clamping kit, or drill and thread holes directly into the table as described in ***Direct Mounting***.

Direct Mounting

Use the included mounting template to drill and tap your table, so the power feeder base can be directly mounted to the table surface (**Figure 10**). If the table is thinner than ⅜" thick where the threaded holes would be drilled and tapped, or if support webbing is in the way, the threads may strip or loosen as the power feeder is used. Thread locking compound will not cure this situation. Revert to the **Through-Bolt Mounting** option. In any case, make sure to use a medium-grade liquid thread locking compound on all threads.

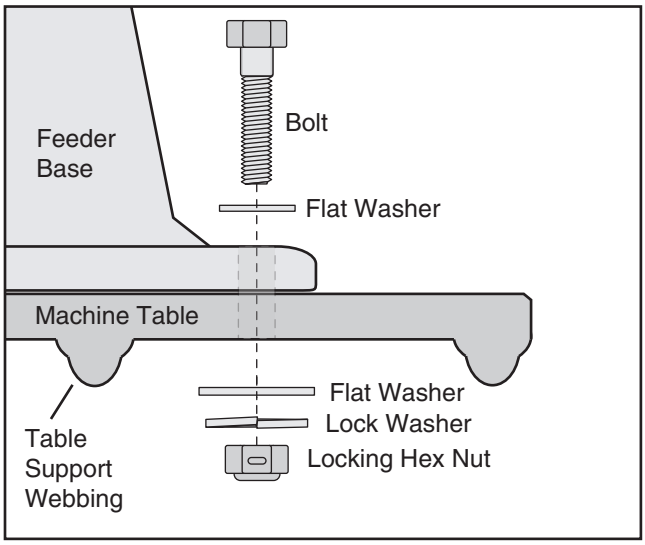


Figure 9. Through-bolt mounting.

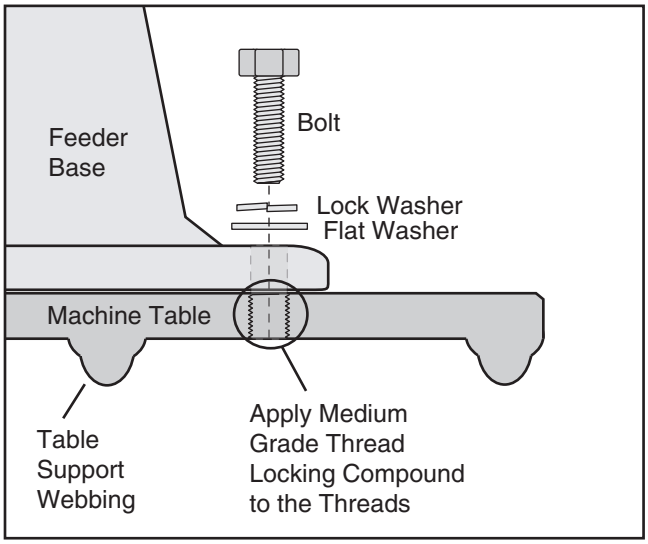


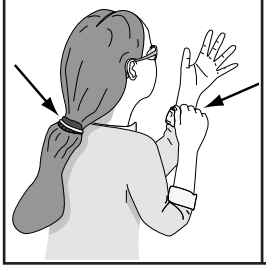
Figure 10. Direct mounting.

Test Run

Once power feeder assembly is complete and mounted on the table, you must test run your power feeder to make sure it runs properly.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the power feeder immediately, then review the **Troubleshooting** table on **Page 21**.

If you still cannot remedy a problem, contact our Technical Support at (570) 546-9663 for assistance.



⚠WARNING

Loose hair, clothing, or jewelry could get caught in machinery and cause serious personal injury. Keep these items away from moving parts at all times to reduce this risk.

To test run the power feed:

1. Read the entire instruction manual first!

2. Make sure all tools and foreign objects have been removed from the tabletop area.

3. Make sure that the power feeder gearbox oil level is full, the oil level should be 1" below the oil fill port. See **Figure 15** for oil fill port location.

4. Ensure that all tools and objects used during set up are cleared away from the machine.

5. Adjust and lock the power feeder so the wheels are held approximately one inch above the table and nothing will interfere with wheel rotation.

6. Connect the power feeder to the power supply and use the feed direction switch (**Figure 11**) to test operation in both directions and both speeds.

   —Listen and watch for abnormal noises or vibrations. The power feeder should run smoothly.

   —Correct for any unusual noises or vibrations before operating the power feeder any further. Always disconnect the power feeder from power when investigating or correcting potential problems.

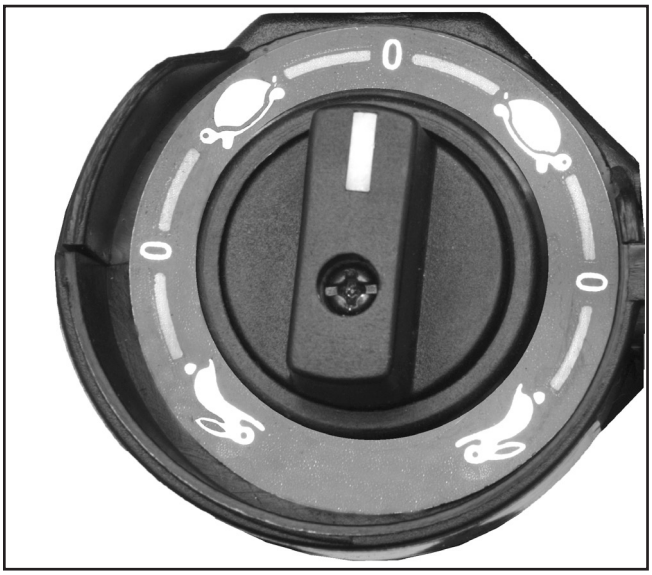
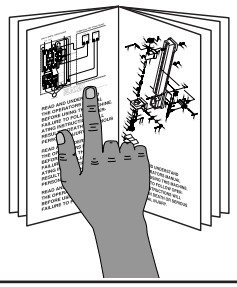


Figure 11. Feed direction and speed switch.

SECTION 4: OPERATIONS

Operation Safety

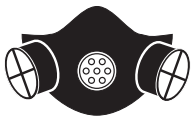


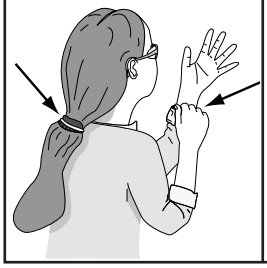
⚠WARNING

To reduce the risk of serious injury when using this machine, read and understand this entire manual before beginning any operations.

⚠WARNING

Damage to your eyes and lungs could result from using woodworking machinery without proper protective gear. Always wear safety glasses and a respirator when operating this machine.





⚠WARNING

Loose hair, clothing, or jewelry could get caught in machinery and cause serious personal injury. Keep these items away from moving parts at all times to reduce this risk.

NOTICE

If you have never used this type of machine or equipment before, WE STRONGLY RECOMMEND that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

Basic Use and Care

⚠WARNING

You MUST assemble all guards, fences, and hold-downs before starting your machine or power feeder. Failure to heed this warning could result in amputation or death!

Power feeders reduce kickback hazards and improve cutting results by feeding in a consistent and stable manner. Remember, do not to stand in the path of potential kickback. When not in use, support the power feeder with a wooden block so the rubber wheels are raised above the table and do not compress from the weight of the power feeder.

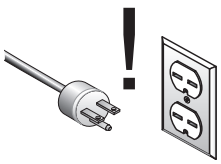
The universal joints on this power feeder allow you to adjust the power feeder tracking and height to accommodate many workpiece sizes. Before loosening any lock lever, always support the power feeder with a block of wood, so the power feeder does not drop and cause damage.

Adjust the power feeder so it is toed-in approximately 1° to 1.5° degrees towards the machine fence. This adjustment will ensure that the power feeder wheels slightly push the workpiece against the fence during cutting operations (**Figure 8**).

Next, adjust the power feeder so the rubber wheels are parallel with the table surface, and are ⅛" lower than the thickness of your workpiece. This adjustment ensures that the workpiece will not slip or hang in the middle of a cut. Always double check that the power feeder wheels are slightly lower than the workpiece before you begin feeding operations. Otherwise, the workpiece may slip and kickback.

Changing Feed Speed

Your power feeder has the option to feed a workpiece at 13, 26, 33, and 66 feet per minute. These rates are achieved by changing the combination of change gears, shown in **Figure 12,** and turning the motor switch to high or low range operation, shown in **Figure 13.**



⚠WARNING

Always disconnect power to the machine before performing maintenance. Otherwize, serious personal injury may occur!

To change the feed rate of your power feeder:

1. Turn the dial to OFF (the "**0**" position).
2. DISCONNECT THE POWER FEEDER FROM POWER!
3. Refer to the change gear chart (**Figure 13**) below to find the gear combination required for your chosen feed rate.
4. Remove the chain cover and the two hex nuts securing the position **A** & **B** change gears to the shafts.
5. Swap the required change gears so the gear hubs are facing toward the power feeder (shown in positions **A** & **B** in **Figure 12**).

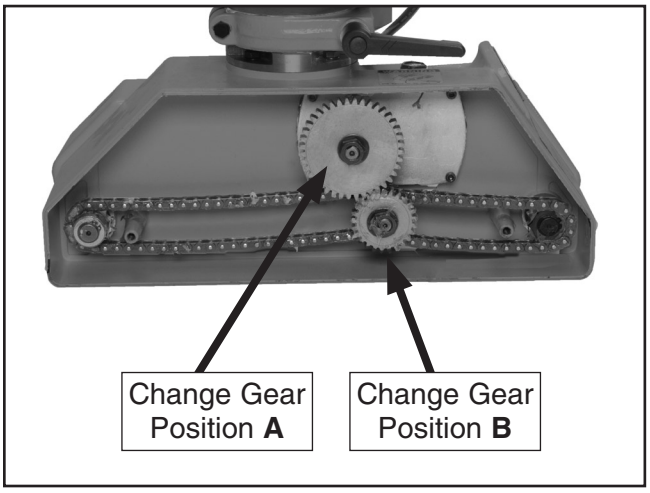
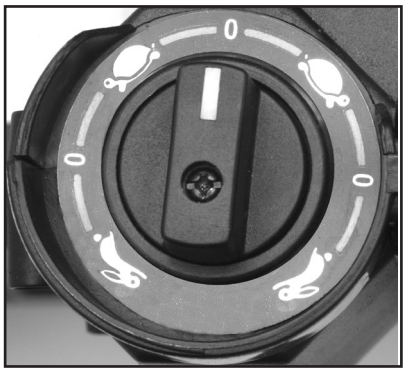


Figure 12. Change gear locations.

6. Reinstall the hex nuts and the chain cover.



Low Speed: **A**, 25 Tooth + **B**, 40 Tooth = **13 Ft Per Min**.

Low Speed: **A**, 40 Tooth + **B**, 25 Tooth = **26 Ft Per Min.**

High Speed: **A**, 25 Tooth + **B**, 40 Tooth = **33 Ft Per Min.**

High Speed: **A**, 40 Tooth + **B**, 25 Tooth = **66 Ft Per Min.**

Motor OFF.

Low Speed W/Optional G4184 Gear Kit: **A**, 21 Tooth + **B**, 44 Tooth = **9.4 Ft Per Min.**

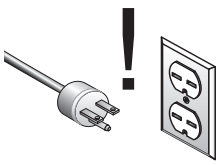
Low Speed W/Optional G4184 Gear Kit: **A**, 44 Tooth + **B**, 21 Tooth = **18.8 Ft Per Min.**

High Speed W/Optional G4184 Gear Kit: **A**, 21 Tooth + **B**, 44 Tooth = **41.4 Ft Per Min.**

High Speed W/Optional G4184 Gear Kit: **A**, 44 Tooth + **B**, 21 Tooth = **82.7 Ft Per Min.**

Figure 13. Change gear chart.

SECTION 5: MAINTENANCE



⚠WARNING
Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.

Schedule

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

Daily Check:
- Loose mounting bolts.
- Worn switch.
- Worn or damaged cords and plugs.
- Damaged or worn wheel rubber.
- Any other condition that could hamper the safe operation of this machine.

Cleaning

Frequently blow-off sawdust with compressed air. This is especially important for the internal working parts and motor. Dust build-up around the motor is a sure way to decrease its life span. If the wheels become loaded up with pitch, oil, or other residues, wipe them clean using a clean rag and a mild solvent. Avoid touching the plastic or paint with mineral spirits or you may damage the surfaces.

Lubrication

- To prevent surface rust and binding, periodically clean and oil all lock lever and lead screw threads with a light machine oil.
- After the first 200 hours of use, or after the first month, change the gearbox oil with 5.1 fluid ounces of a good automotive grade 80-90W gear oil. For the remaining life of the power feeder, change the oil every 1000 hours, or every 6 months. **Note:** *To drain the unit, remove the fill plug labeled "OIL" and invert the power feeder.*
- Every 40 hours of use, or once every two weeks, wipe clean and lubricate the wheel grease fittings (**Figure 14**) with one pump from a grease gun filled with automotive grade GL-2 grease.

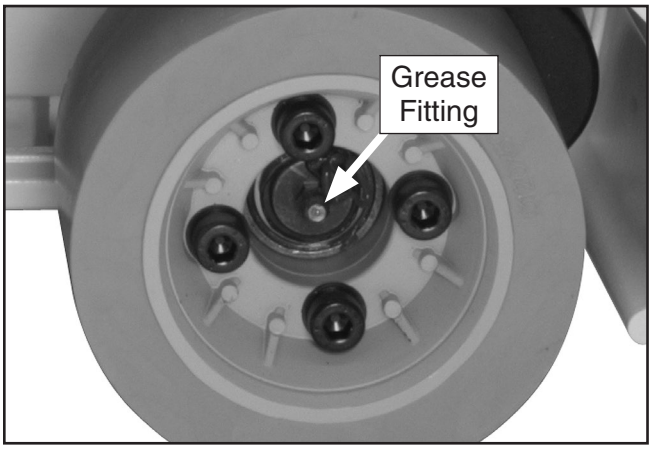


Figure 14. Wheel lubrication.

- As required to prevent rust, binding, and dry spots, brush the sprockets, chain, and change gears (**Figure 15**) with a light film of an automotive grade GL-2 grease.

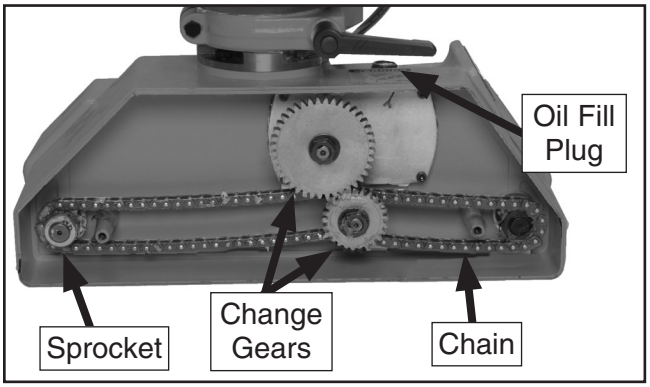
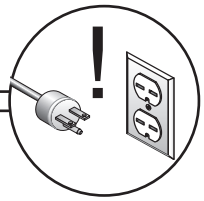


Figure 15. Sprockets, chain, and gears.

SECTION 6: SERVICE

Review the troubleshooting and procedures in this section to fix or adjust your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then feel free to call our Technical Support at (570) 546-9663.

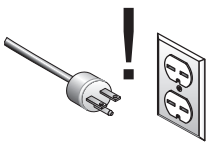
Troubleshooting



Motor & Electrical

Symptom	Possible Cause	Possible Solution
Motor will not start.	1. Low voltage. 2. Open circuit in motor or loose connections. 3. Blown fuse tripped circuit breaker. 4. Start capacitor isat fault. 5. Motor switch or motor is at fault.	1. Check power supply for proper voltage. 2. Inspect all lead connections on motor and circuit board for loose or open connections. 3. Repair for cause of overload and replace fuse or reset circuit breaker. 4. Replace start capacitor. 5. Replace switch, or motor.
Fuses or circuit breakers trip.	1. Short circuit in line cord or plug. 2. Short circuit in motor or loose connections. 3. Power feeder rollers are jammed.	1. Inspect cord or plug for damaged insulation and shorted wires and replace extension cord. 2. Inspect all connections on motor for loose or shorted terminals or worn insulation. 3. Disconnect all machinery from power and correct for cause of jamming.
Motor overheats.	1. Motor overloaded. 2. Air circulation through the motor restricted.	1. Reduce power feeder feed rate. 2. Clean out motor fan cover to provide normal air circulation.
Workpiece jams when feeding under rollers.	1. Rollers set too low. 2. Feeder at wrong angle.	1. Raise feeder. 2. Adjust angle.
Workpiece slips while passing beneath rollers.	1. Rollers positioned too high, no traction. 2. Feeding too fast. 3. Rollers are dirty or oily. 4. Worn roller(s).	1. Lower feeder. 2. Slow feed speed. 3. Clean roller surface with a mild solvent. 4. Replace roller(s) (**Page 22**).
Workpiece cut is burnt.	1. Wrong feed speed. 2. Cutter is at fault.	1. Adjust feed speed. 2. Sharpen or replace dull blade or cutter.
Rough finish or chipped grain on workpiece.	1. Feed speed too fast. 2. Dull cutter or blade. 3. Power feeder angle is not toed in to keep workpiece against the fence.	1. Slow speed. 2. Replace with sharp cutter or blade. 3. Adjust power feeder so it is toed-in 1° to 1.5° toward the fence.
Fuzzy grain occurs when planing or moulding.	1. Lumber has high moisture content. 2. Dull knives/cutter.	1. If moisture content is higher than 20%, sticker and allow to dry. 2. Sharpen or replace knives.
Workpiece hangs and does not enter the machine.	1. Power feeder roller height is set incorrectly.	1. Lower the power feeder roller 1/8" lower than the height of the workpiece.

Wheel Replacement



⚠WARNING

Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.

If you damage one or more wheels, you can easily replace the wheels.

Tools Needed **Qty**

- Hex Wrench 5mm..... 1

To replace a wheel:

1. DISCONNECT THE POWER FEEDER FROM POWER!
2. Using a 5mm hex wrench, remove the two wheel retaining cap screws (**Figure 16**).

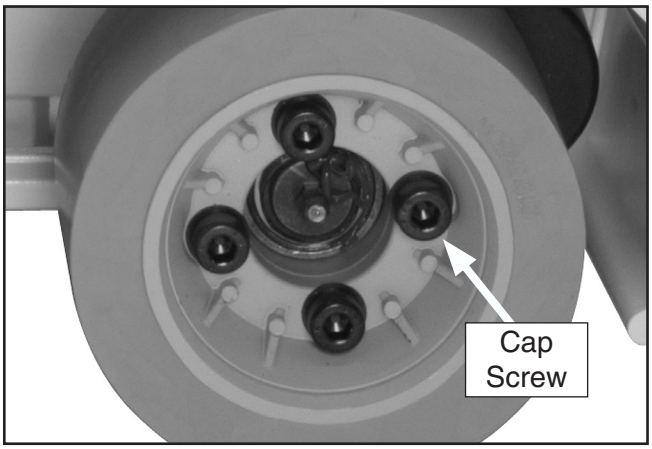
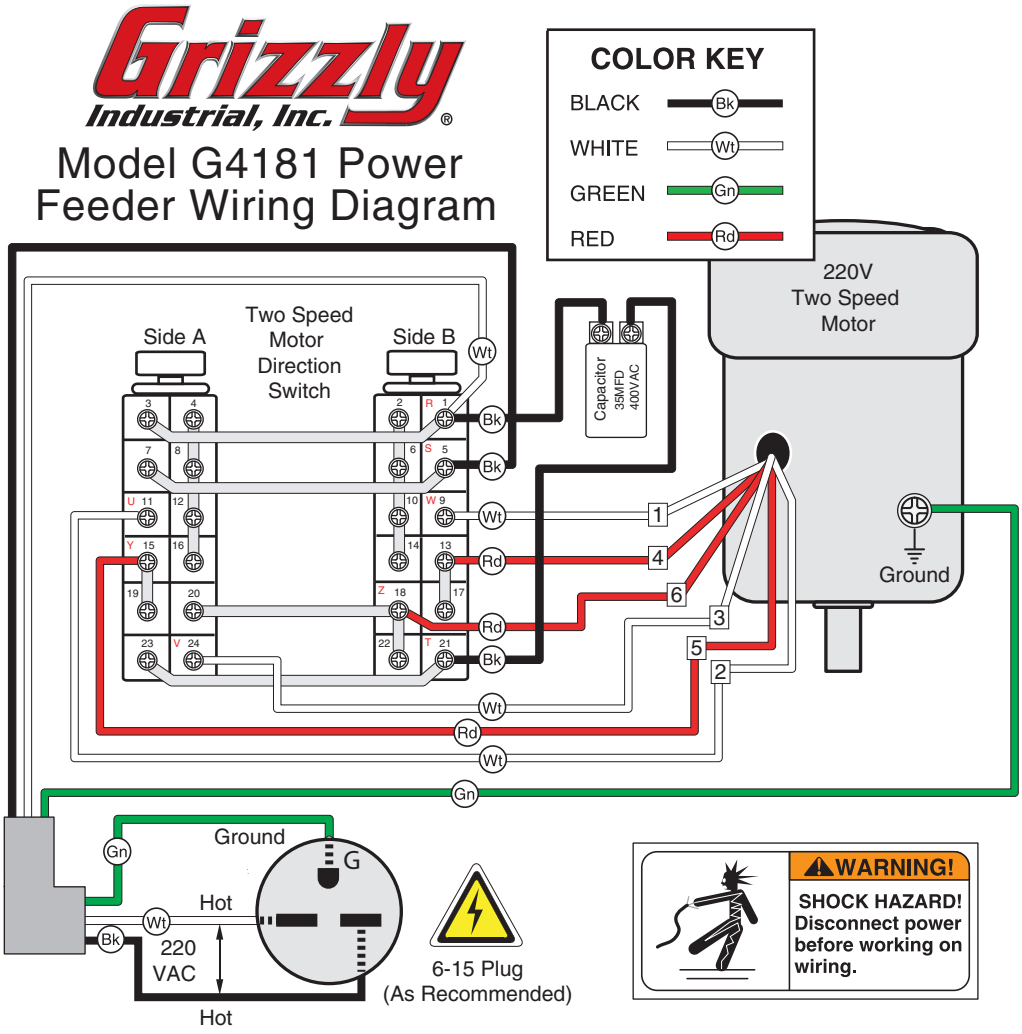


Figure 16. Wheel replacement.

3. Swap the old wheel with the new.
4. Reinstall the two cap screws, and tighten in an alternating pattern until the wheel is secure**.**

Wiring Diagram



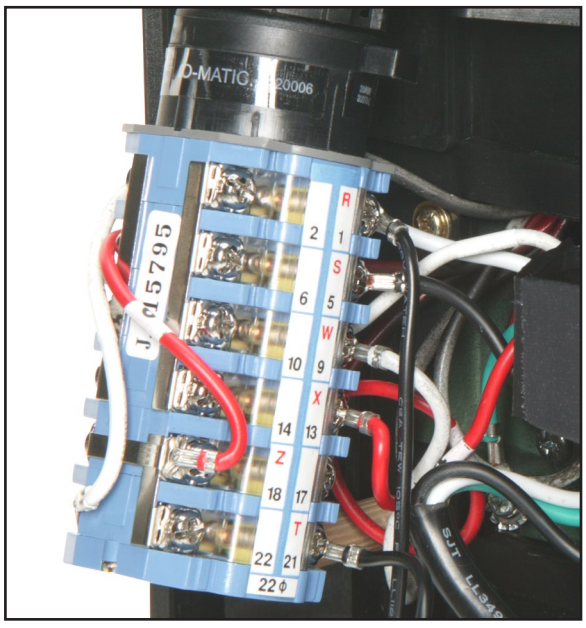
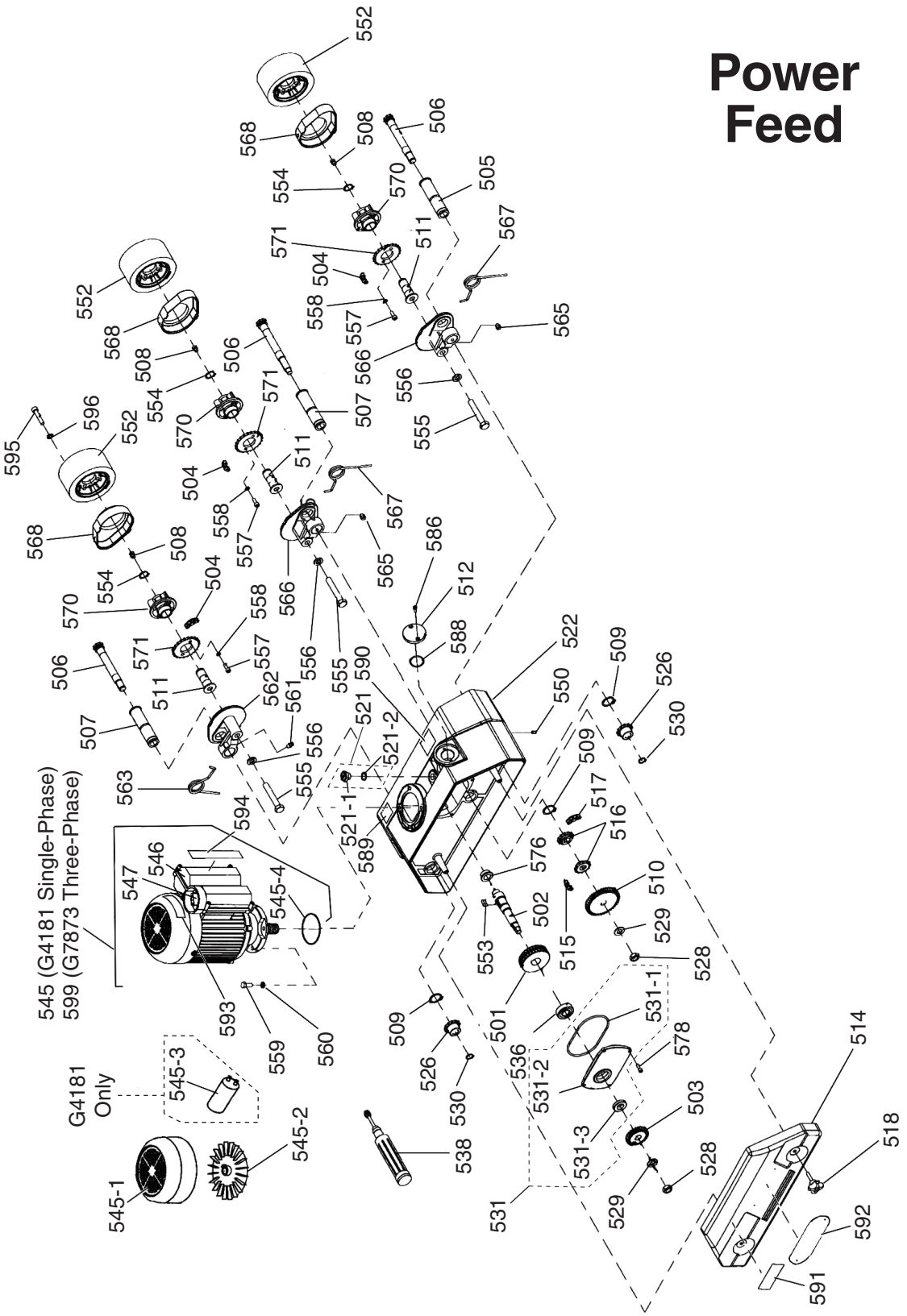


Figure 17. Motor power and direction switch.

Figure 18. Motor switch and capacitor.

SECTION 8: PARTS

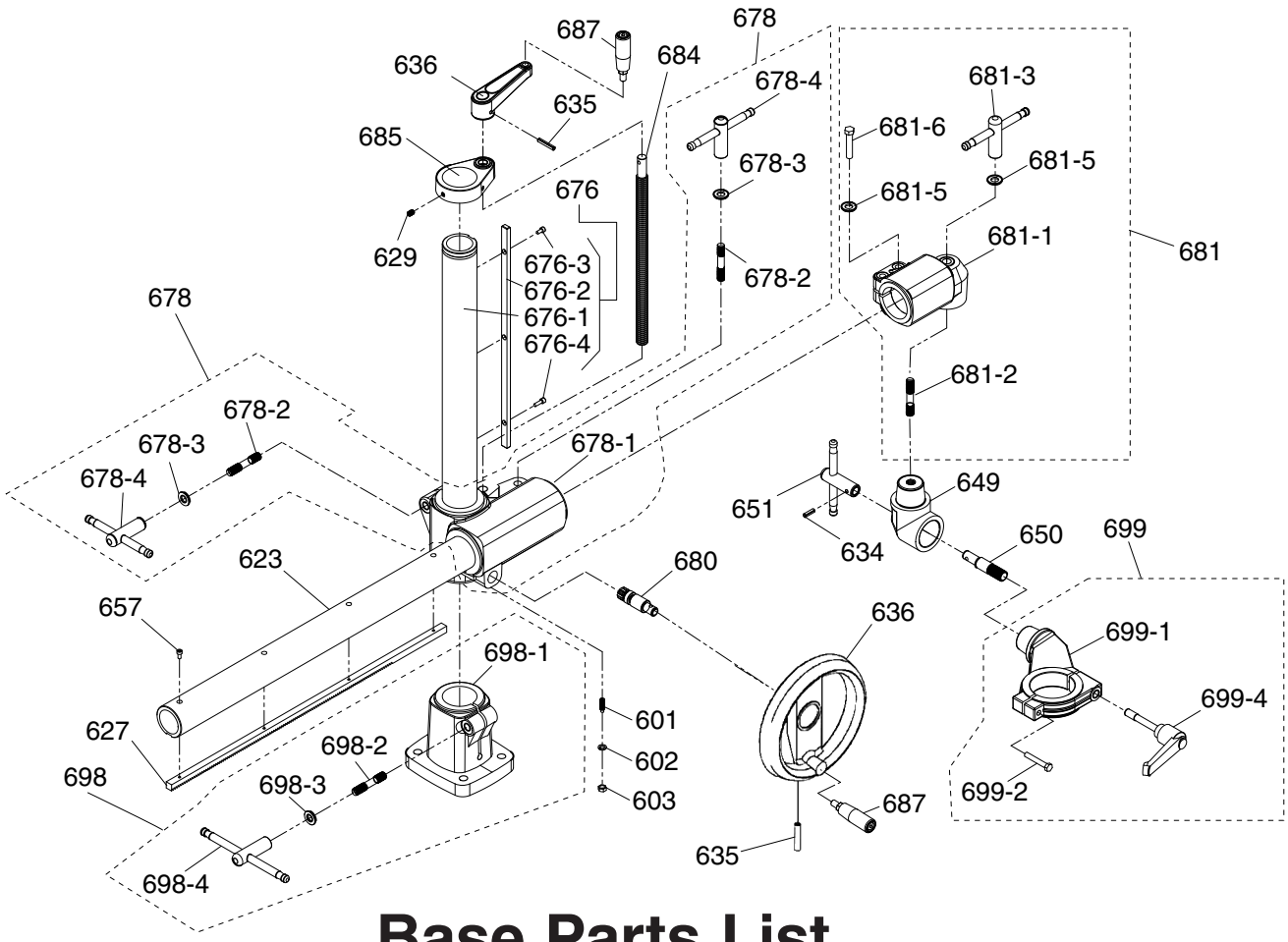


Power Feed Parts List

REF	PART #	DESCRIPTION
501	P4181501	WORM GEAR
502	P4181502	BUSHING
503	P4181503	GEAR 25T (W/KEY)
504	P4181504	CHAIN (26S)
505	P4181505	TUBE
506	P4181506	SPROCKET SHAFT
507	P4181507	SPROCKET SHAFT
508	P4181508	GREASE NIPPLE
509	PR58M	EXT RETAINING RING 24MM
510	P4181510	GEAR 40T (W/KEY)
511	P4181511	ROLLER SPINDLE
512	P4181512	CAP
514	P4181514	COVER
515	P4181515	CHAIN (62S)
516	P4181516	DOUBLE SPROCKET
517	P4181517	CHAIN (40S)
518	PSW03-1	KNOB
521	P4181521	OIL CAP ASSEMBLY
521-1	P4181521-1	OIL CAP
521-2	PORP015	O-RING 14.8 X 2.4 P15
522	P4181522	FRAME
526	P4181526	SPROCKET
528	PN09M	HEX NUT M12-1.75
529	PW06M	FLAT WASHER 12MM
530	PR47M	EXT RETAINING RING 13MM
531	P4181531	WORM GEAR BOX COVER ASSEMBLY
531-1	P4181531-1	O-RING 101.19MM X 3.53MM
531-2	P4181531-2	GEAR BOX COVER
531-3	P4181531-3	OIL SEAL
536	P6203	BALL BEARING 6203ZZ
538	P4181538	GREASE GUN
545	P4181545	MOTOR 1HP 220V 1-PH
545-1	P4181545-1	FAN COVER
545-2	P4181545-2	FAN
545-3	P4181545-3	START CAPACITOR 35MFD 400VAC

REF	PART #	DESCRIPTION
545-4	PORG070	O-RING 69.4 X 3.1 G70
546	P4181546	COMPLETE SWITCH BOX ASSEMBLY
547	P4181547	COMPLETE SWITCH ASSEMBLY
550	PSS01M	SET SCREW M6-1 X 10
552	G4182	ROLLER
553	P4181553	SPECIAL KEY
554	PR09M	EXT RETAINING RING 20MM
555	P4181555	SPECIAL HEX BOLT M12-1.75
556	PLW05M	LOCK WASHER 12MM
557	PSB01M	CAP SCREW M6-1 X 16
558	PLW03M	LOCK WASHER 6MM
559	PB09M	HEX BOLT M8-1.25 X 20
560	PLW04M	LOCK WASHER 8MM
561	P4181561	GREASE NIPPLE
562	P4181562	SPROCKET CASE
563	P4181563	TORSION SPRING (B) 3.8 X 102
565	P4181565	GREASE NIPPLE
566	P4181566	SPROCKET CASE
567	P4181567	TORSION SPRING (A) 3.8 X 102
568	P4181568	CASE COVER
570	P4181570	ROLLER SUPPORT
571	P4181571	SPROCKET
576	P4181576	BUSHING
578	PSB24M	CAP SCREW M5-.8 X 16
586	PSB50M	CAP SCREW M5-.8 X 10
588	PORS028	O-RING 27.5 X 2.0 S28
589	P4181589	QC LABEL
590	P4181590	GENERAL WARNING LABEL
591	P4181591	COVER WARNING LABEL
592	P4181592	GRIZZLY LOGO PLATE
593	P4181593	SWITCH DIRECTION LABEL
594	PLABEL-14	ELECTRICITY LABEL
595	PSB15M	CAP SCREW M5-.8 X 20
596	PLW01M	LOCK WASHER 5MM
599	P7873599	MOTOR 1HP 220V 3-PH

Base



Base Parts List

REF	PART #	DESCRIPTION
601	PSS09M	SET SCREW M8-1.25 X 20
602	PLW04M	LOCK WASHER 8MM
603	PN03M	HEX NUT M8-1.25
623	P4181623	OVER ARM (720MM)
627	P4181627	RACK (650MM)
629	PSS14M	SET SCREW M8-1.25 X 12
634	PRP71M	ROLL PIN 6 x 22
635	PRP31M	ROLL PIN 6 x 36
636	P4181636	HANDWHEEL
649	P4181649	SWIVEL CONE
650	P4181650	STUD
651	P4181651	T-HANDLE
657	PSB50M	CAP SCREW M5-.8 X 10
676	P4181676	VERTICAL COLUMN ASSEMBLY
676-1	P4181676-1	VERTICAL COLUMN (560MM)
676-2	P4181676-2	ELEVATING KEY 450 X 8T
676-3	PSB50M	CAP SCREW M5-.8 X 10
676-4	PSB24M	CAP SCREW M5-.8 X 16
678	P4181678	ELEVATING BRACKET ASSEMBLY
678-1	P4181678-1	ELEVATING BRACKET
678-2	P4181678-2	STUD M12-1.75 X 70

REF	PART #	DESCRIPTION
678-3	PW06M	FLAT WASHER 12MM
678-4	P4181678-4	T-HANDLE
680	P4181680	PINION
681	P4181681	OVER ARM CONE ASSEMBLY
681-1	P4181681-1	OVER ARM CONE
681-2	P4181681-2	STUD
681-3	P4181681-3	T-HANDLE
681-5	PW04M	FLAT WASHER 10MM
681-6	PB73M	HEX BOLT M10-1.5 X 50
684	P4181684	ELEVATING SCREW M19-4 X 380
685	P4181685	COLUMN CAP
687	P4181687	HANDLE
698	P4181698	BASE ASSEMBLY
698-1	P4181698-1	COLUMN BASE
698-2	P4181698-2	STUD M12-1.75 X 70
698-3	PW06M	FLAT WASHER 12MM
698-4	P4181698-4	T-HANDLE
699	P4181699	MOTOR CLAMP ASSEMBLY
699-1	P4181699-1	MOTOR CLAMP
699-2	PB166M	HEX BOLT M8-1.25 X 50
699-4	P4181699-4	LEVER

Grizzly Industrial, Inc. WARRANTY CARD

Name _____

Street _____

City _____ State _____ Zip _____

Phone # _____ Email _____ Invoice # _____

Model # _____ Order # _____ Serial # _____

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. ***Of course, all information is strictly confidential.***

1. How did you learn about us?

____ Advertisement ____ Friend ____ Catalog
____ Card Deck ____ Website ____ Other:

2. Which of the following magazines do you subscribe to?

____ Cabinet Maker
____ Family Handyman
____ Hand Loader
____ Handy
____ Home Shop Machinist
____ Journal of Light Cont.
____ Live Steam
____ Model Airplane News
____ Modeltec
____ Old House Journal
____ Popular Mechanics
____ Popular Science
____ Popular Woodworking
____ Practical Homeowner
____ Precision Shooter
____ Projects in Metal
____ RC Modeler
____ Rifle
____ Shop Notes
____ Shotgun News
____ Today's Homeowner
____ Wood
____ Wooden Boat
____ Woodshop News
____ Woodsmith
____ Woodwork
____ Woodworker West
____ Woodworker's Journal
____ Other:

3. What is your annual household income?

____ $20,000-$29,000 ____ $30,000-$39,000 ____ $40,000-$49,000
____ $50,000-$59,000 ____ $60,000-$69,000 ____ $70,000+

4. What is your age group?

____ 20-29 ____ 30-39 ____ 40-49
____ 50-59 ____ 60-69 ____ 70+

5. How long have you been a woodworker/metalworker?

____ 0-2 Years ____ 2-8 Years ____ 8-20 Years ____ 20+ Years

6. How many of your machines or tools are Grizzly?

____ 0-2 ____ 3-5 ____ 6-9 ____ 10+

7. Do you think your machine represents a good value? _____Yes _____No

8. Would you recommend Grizzly Industrial to a friend? _____Yes _____No

9. Would you allow us to use your name as a reference for Grizzly customers in your area?
Note: *We never use names more than 3 times.* _____Yes _____No

10. Comments: _____

_____

_____

_____

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE

Place
Stamp
Here

GRIZZLY INDUSTRIAL, INC.
P.O. BOX 2069
BELLINGHAM, WA 98227-2069

FOLD ALONG DOTTED LINE

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WARRANTY AND RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number,'' which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

grizzly.com
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